Notice of Allowability	Application No.	Applicant(s)	
	09/916,388	GILLESPIE ET AL.	
	Examiner	Art Unit	
	Fred I. Ehichioya	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *1/19/2006*.

2. ☒ The allowed claim(s) is/are *1 - 41, 46, 47, 52 and 62 (renumber 1 - 45)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

SHAHID ALAM
PRIMARY EXAMINER

DETAILED ACTION

Examiner's Amendment

1. During telephone conversation with Anne Davis Barry, Attorney for the Applicants, Registration Number 47,408 on March 29, 2006 authorizations for this Examiner's amendment was given in a telephone interview.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims,

Please amend the followings:

1. (Currently Amended) A method of using a computer processor for automated independent technical review, the method comprising:

receiving an assay result of a radioactive waste container;

generating a review template;

determining whether said assay result is within a predetermined parameter based on said generating said review template, said determining whether said assay result is within a predetermined parameter including comparing a total plutonium mass result to a qualification mass value, the comparing including:

comparing said total plutonium mass result to a low qualification mass value;

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is less than said low qualification mass;

comparing said total plutonium mass result to a high qualification

mass value; and

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is greater than said high qualification mass value;

determining whether a review is required if said assay result is not within said predetermined parameter;

rejecting said assay result if said review is not required and said assay result is not within said predetermined parameter; and

generating a report indicating that an expert review is required if an item description code for said radioactive waste container is not found within said assay result.

11. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining whether the density of said radioactive waste container is within said predetermined parameter.

13. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining whether a radioactive material in said radioactive waste container is lumped.

Please cancel claims 16 and 17.

18. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining that said assay result is not within said predetermined parameter if a total plutonium weight percent is greater than about 10 percent.

19. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining that said assay result is not within said predetermined parameter if a criticality safety value is greater than about 220 grams.

20. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining that said assay result is not within said predetermined parameter if a fissile gram equivalent at 2 sigma is greater than about 220 grams.

21. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes using a nuclide total result to compare a mass ratio of a first isotope and a second isotope.

26. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining a nuclide totals result for an isotope.

33. (Currently Amended) The method of claim 26, wherein said determining whether said assay result is within said predetermined parameter further includes determining that said assay result is not within said predetermined parameter if a count rate corresponding to said isotope is greater than about 5 times an error value.

34. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes determining that said assay result is not within said predetermined parameter if a 400 keV transmission source peak intensity is less than about 1 percent of a calibrated intensity.

35. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes:

defining a segment of said radioactive waste container;

determining whether a transmission source peak for said segment of said radioactive waste container is a low transmission source peak having an energy of less than about 400 keV; and

determining that said assay result is within said predetermined parameter if said low transmission source peak is greater than about 0.1 percent of a calibrated intensity.

36. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes:

detecting the presence of a pulser peak;

determining that said assay result is not within said predetermined parameter if said pulser peak is not detected; and

determining that said assay result is not within said predetermined parameter if a total number of counts in said pulser peak is less than a preset fraction of an initial count rate.

37. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes:

detecting the presence of a reference source peak;

determining that said assay result is not within said predetermined parameter if said reference source peak is not detected; and

determining that said assay result is not within said predetermined parameter if a total number of counts in said reference source peak is less than about 50 percent of a calibrated rate.

38. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes:

defining a segment of said radioactive waste container;

determining a live time result for said segment;

determining a real time result for said segment; and

determining that said assay result is not within said predetermined parameter if said live time result divided by said real time result is less than about 0.3.

39. (Currently Amended) The method of claim 1, wherein said determining whether said assay result is within said predetermined parameter further includes:

defining a first segment and a second segment of said radioactive waste container;

detecting a first radioactivity level of said first segment;

detecting a second radioactivity level of said second segment;

detecting a total radioactivity level of said radioactive waste container; and

determining that said assay result is not within said predetermined parameter if said first radioactivity level and said second radioactivity level combined is greater than about 50 percent of said total radioactivity level.

Please cancel claims 42 - 45.

46. (Currently Amended) A system for automated independent technical review, the system comprising:

a host system for receiving an assay result of a radioactive waste container, generating a review template, determining whether said assay result is within a predetermined parameter based on said generating said review template, determining

whether a review is required if said assay result is not within said predetermined parameter, rejecting said assay result if said review is not required and said assay result is not within said predetermined parameter, and generating a report indicating that an expert review is required if an item description code for said radioactive waste container is not found within said assay result; wherein said determining whether said assay result is within a predetermined parameter includes comparing a total plutonium mass result to a qualification mass value, the comparing including: comparing said total plutonium mass result to a low qualification mass value; determining that said assay result is not within said predetermined parameter if said total plutonium mass result is less than said low qualification mass; comparing said total plutonium mass result to a high qualification mass value; and determining that said assay result is not within said predetermined parameter if said total plutonium mass result is greater than said high qualification mass value;

a network coupled to said host system; and

a database coupled to said host system for storing data relating to said automated independent technical review.

Please cancel claims 48 - 51.

52. (Currently Amended) A computer-readable storage medium encoded with machine-readable computer program code for automated independent technical review, the storage medium including instructions for causing a processor to implement a method comprising:

receiving an assay result of a radioactive waste container;

generating a review template;

determining whether said assay result is within a predetermined parameter based on said generating said review template, said determining whether said assay result is within a predetermined parameter including comparing a total plutonium mass result to a qualification mass value, the comparing including:

comparing said total plutonium mass result to a low qualification mass value;

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is less than said low qualification mass;

comparing said total plutonium mass result to a high qualification mass value; and

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is greater than said high qualification mass value;

determining whether a review is required if said assay result is not within said predetermined parameter; ~~and~~

rejecting said assay result if said review is not required and said assay result is not within said predetermined parameter; and

generating a report indicating that an expert review is required if an item description code for said radioactive waste container is not found within said assay

result.

Please cancel claims 53 - 61.

Allowable Subject Matter

2. Claims 1 – 41, 46, 47, 52 and 62 (renumbered 1 – 45) are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record, (USPN 6,818,188) discloses radioactive waste treatment facility (column 1, lines 5 - 10) but fail to anticipate or render obvious the recited feature "determining whether assay result is within a predetermined parameter including comparing a total plutonium mass result to a qualification mass value" and "generating a report indicating that an expert review is required if an item description code for said radioactive waste container is not found within said assay result"; (USPN 6,355,857) discloses a treatment process utilizing molten metals to react chemically with certain waste materials in a waste stream and to alloy radioactive isotopes in the waste stream (column 1, lines 19 - 23) but fail to anticipate or render obvious the recited feature "comparing total plutonium mass result to a low qualification mass value and determining that said assay result is not within said predetermined parameter if said total plutonium mass result is less than said low qualification mass" as recited in the independent claims.

The dependent claims, being definite, further limiting, and fully enabled by the specification are also allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Patent Examiner
Art Unit 2162

March 31, 2006

SHAHID ALAM
PRIMARY EXAMINER